

Please read this manual carefully before using the unit.

USER'S Manual

RAIN CLOUD™ (C-21) Atmospheric Water System



- * **6 Steps SLO-FLO™ filtration system.**
- * **Functions as an air cleaner and dehumidifier.**
- * **No need for water supply.**
 - Water is supplied from the air you breath everyday.
- * **Cost efficient at about 1/6 the price of bottled water.**
- * **Chemical free process.**
- * **External water supply.**
 - Can drau water from the pail.
- * **Safety Devices.**
 - Leakage sensor.
 - Children safety lock valve.
 - UV Indicator.
 - Double overheat protector.
 - Double overflow protector.

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Safety notes

Follow safety precautions for the AirWaterMachine

- Check the electric power supply (230V or 115V depending on the country). The required voltage can be found on the back of the AirWaterMachine.
- Avoid exposure to extreme temperature and rain.
- Place the AirWaterMachine on a hard, flat surface to prevent noise, leakage and shaking.
- Place the AirWaterMachine more than 10cm away from the wall for proper air flow and operation of the condenser.
- Do not decline the AirWaterMachine more than 45 degrees when moving it. Handle with care when moving and installing.
- Connect the electrical power 30 minutes after installing it.
- Plug into the proper outlet.
- Don't move during operation.

Your unit is also equipped with HYBRID technology that allows it to be hooked up to a water line in the same manner as a water line is connected to an ice water in a refrigerator. The HYBRID System is in place as an emergency back up line. By pushing the pumping switch (located on the back right hand side) it will only allow a small amount of water into the unit through the attached line. This water immediately goes through the filtration system and mixes with airwater.

Due to the intricacies of the micro-computer and filtration system it is necessary to give your unit the time to get all system controls in place. Additionally the unit needs about 3.5gallons to fill the water lines, filters, and hot & cold water tanks.

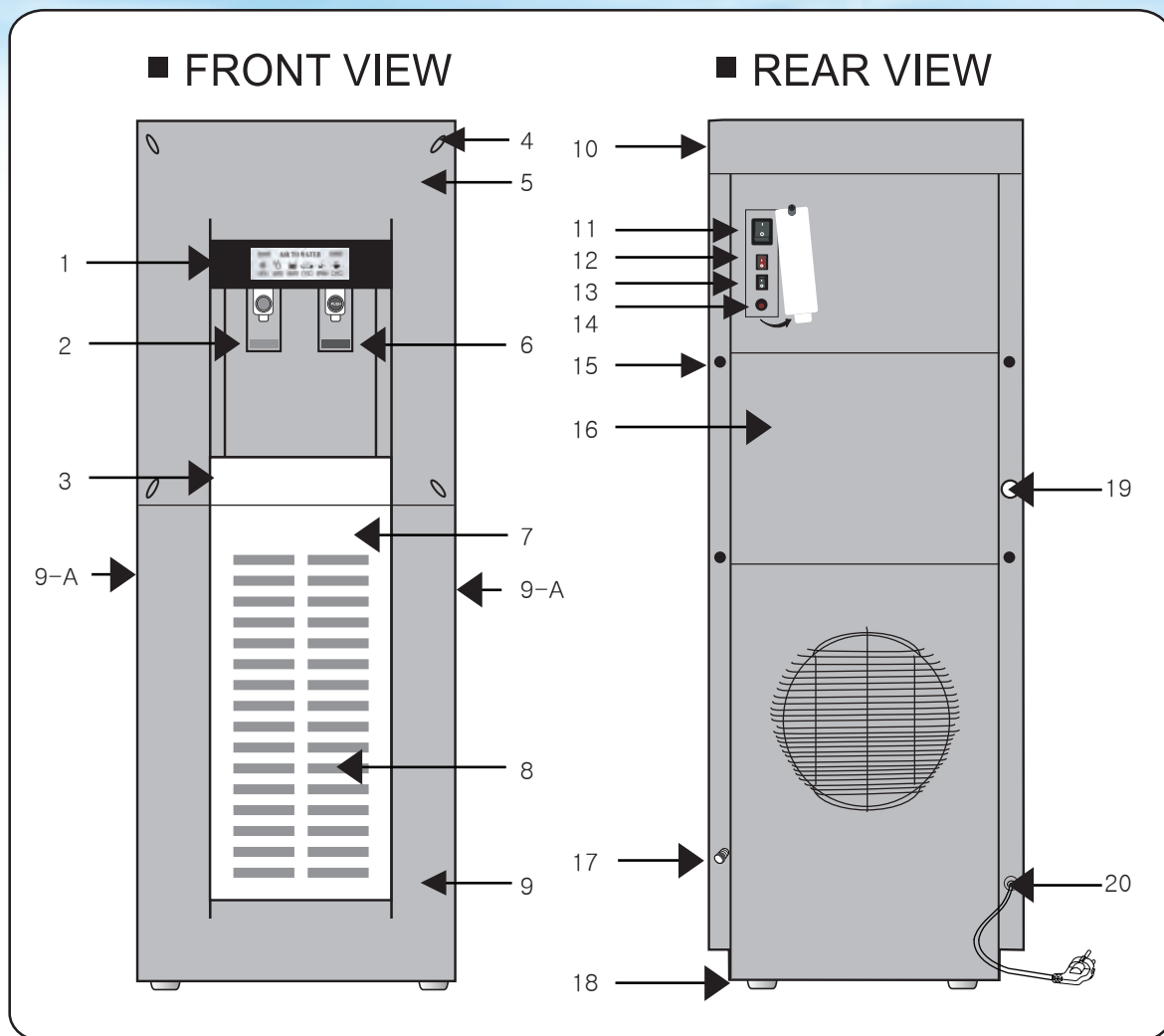
This is initially accomplished by priming the unit with about 3gallons of distilled water using the intake pumping switch. Then allow the unit to run for 24 hours or until the full indicator light (located on the front display panel) comes on. You are then free to begin experiencing the "Plants Purest Water™"

Note : Atmospheric Water is a valuable commodity and should be treated as such.

Only take the amount of water you are going to drink.



Overview of system



1. LCD display
2. Cold water dispenser valve
3. Drip tray
4. Front decorative piece
5. Front upper panel
6. Hot water dispenser valve,
Child safety lock
7. Hot & Cold water drain valve
(inside)
8. Replaceable air filter
(inside)
9. Front lower panel / to remove
- 9-A. Front panel / to removal grips

10. Top cover
11. Main switch
12. Hot water switch
13. Cold water switch
14. Pumping switch
15. Screws for filter exchange
16. filter cover panel
17. Optional outsource water connect
18. Balancing leg
19. Cold water adjustment
(inside)
20. Power cord

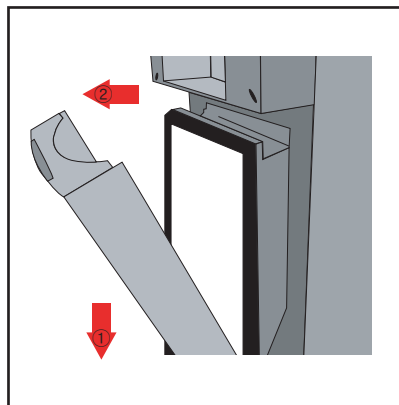
Air Filter Replacement & Cleaning Procedures

Air flow is paramount to water production; Air Purification is paramount to your health.

You must keep the air filter clean and exchange the old air filter with a new one at 2 month intervals.

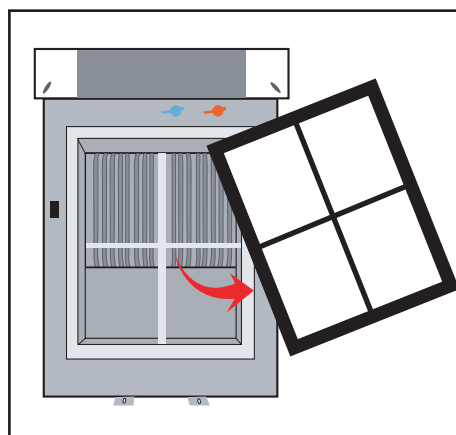
Due to various environmental conditions you should rinse your filter every week. This 3 step process is quick and easy as described:

1. Turn the power off on your unit so air particles are not drawn into the evaporation coils while the air filter is being cleaned. Remove front lower panel (#9) panel by pushing down on the upper sides (#9A) of the panel while at the same time pulling the front cover towards you to remove.



Push down on sides, then pull forward & up

2. Pull out the air filter (#8) attached by double sided adhesive tape. Vacuum the air filter (outer side only) with moderate pressure. Replace the air filter



3. Replace the lower front panel by placing the lower slot holes back into the frame holes, push down and push forward so that the cover slides back up into place. Turn power back on to the unit



System specification & Average water generating standard in lab

● Specification

Dimension (W X D X H)	400mm X 464mm X 1125mm (15.7" X 18.3" X 44.3")			
Weight	55Kg (121lbs)			
Water Storage Capacity	Total 25 liters (6.6 Gal.) (Top, Cold, Hot and Bottom tank, Filter)			
Power Consumption	Power	110V~120V, 60Hz	230V, 50Hz	220V~240V, 50Hz~60Hz
	Compressor	473W (115V, 60Hz)	373W (230V, 50Hz)	373W (230V, 50Hz)
	Heater	450W	430W	
Refrigerant	R-134a			
Heating system	Heater : Band heater Temperature control : Auto bimetal Overheat protector : Manual bimetal			
Cooling system	Compressor : Hermetic Temperature : Thermostat Condensing type : Compulsive convection			
Filter system	6 steps SLO-FLO™ filtration system			

● Average daily water production in lab

Humidity Temperature	50(%)	60(%)	65(%)	70(%)	80(%)	90(%)
15°C (Liters) 59°F (Gallon)	6.7 1.77	6.9 1.82	8.4 2.22	9.9 2.62	10.7 2.83	13.6 3.59
20°C (Liters) 68°F (Gallon)	8.6 2.27	9.6 2.54	10.8 2.85	12.2 3.22	13.6 3.59	18.6 4.91
25°C (Liters) 77°F (Gallon)	10.9 2.88	13.6 3.59	16.8 4.44	19.5 5.15	23.2 6.13	28.5 7.53
30°C (Liters) 86°F (Gallon)	13.4 3.54	19.2 5.07	22.0 5.81	26.9 7.11	30.4 8.03	38.4 10.14

Operational indicator

• Display Indication



Heating system indicator.
When you turn on the hot water switch, heating system starts working.
Heating system starts working after the water level reaches the middle once.




Chilling system indicator.
When you turn of the cold water switch, chilling system starts working.
Turn off the cold water switch to produce water faster.

LEAKAGE

Leakage detecting indicator.
If leakage detecting indicator is on, please check to see if there is any leakage.



Water level indicator (High, Middle, Low).
When water in the top tank is full, the AirWaterMachine stop making water.



- High water level. Top tank is full and unit stop making water.
- Middle water level. Water level in top tank is middle.
- Low water level. Water level in top tank is low.



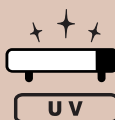
Water generator working indicator.
When the water generator is paused for recess, the pause lamp comes on.



Refreshing indicator.
When the cold water or the hot water is circulated, each of 3 arc shape lamps comes on in sequence.

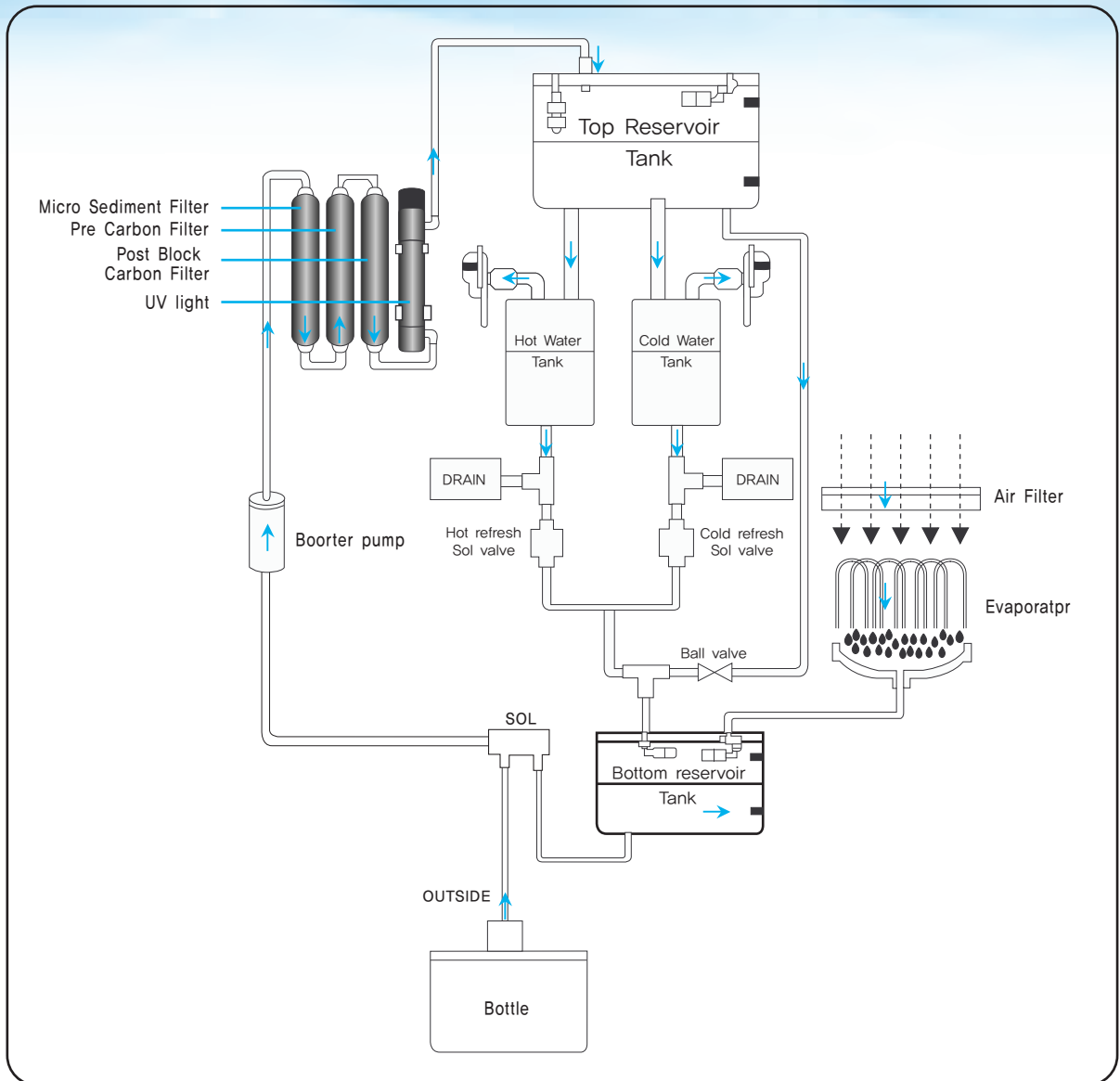
OUTSIDE

Outside water connection indicator.
When you push the pumping switch, water is supplemented from the outside. (Please see Procedure for operation on page 10)



UV failure indicator.
Blackout : UV or UV ballast is out of order. Please call a service man.
Flickering : UV bulb reaches the expected life span.
(After replace the UV bulb, push the pumping switch for 10 seconds three times in 1 minute.

Water flow diagram



The unit is fitted with a microcomputer, which ensures proper working of internal parts to regulate, supervise, and control the functions of individual parts inside the unit.

Installation and operation

● Location of installation

- 1) Avoid direct sunlight, exposure to rain and extreme temperatures (indoor use only).
- 2) Place the AirWaterMachine on a hard, flat surface.
- 3) It should not be shaken or rocked.
- 4) Locate the AirWaterMachine in a well-ventilated place.
- 5) Install it more than 10cm away from the wall to insure proper operation and air flow.
- 6) Avoid Harmful gas or heat.
- 7) In order to be sanitary, the AirWaterMachine must not come-in contact with any harmful gas or excessive heat.

* CAUTION : In subzero temperatures, the parts which contain water may freeze and rupture.

● Precautions for installation

- 1) Confirm the proper voltage.
- 2) Make sure to use an individual outlet.
- 3) When the plug becomes disconnected or power is off, give the AirWaterMachine up to five minutes with the plug in before using.
- 4) Don't move during operation.
- 5) Don't turn on the hot water switch when water is not filled in hot tank.
If heating system works without water in hot tank, the tank will be overheated and manual bimetal will stop the heating system.
Push the manual bimetal to start the heating system again.

Installation and operation

● Procedure for operation

- 1) Do not turn on at least 6 hours after transportation.
- 2) Connect the power cord and turn on the main switch at the back side.
- 3) If available, connect the tubing hose (which is provided with the unit) to bulkhead fitting at the back side of the unit and immerse the opposite side of the tubing hose to water in any pail. And push the red round button at the back. The unit will suck water from the pail during 20 minutes (Do not connect to tap water).
- 4) Drain water through drain cap. Step 3,4 are recommended for the first time of using.
- 5) Wait for at least 12 hours until the unit creates enough water to drink.
- 6) Turn on hot and cold water switch (Please make sure water comes out from hot water valve).
- 7) Wait up to about 30 minutes for hot and cold water.
- 8) If leakage detecting indicator is on, please check to see if there is any leakage.
- 9) Push both round button and lever of hot water valve at the same time to drink hot water.

● Storage

- 1) In case of storing the AirWaterMachine for a long period of time, open the drain cap located at the front and completely drain all water inside of hot water tank and cold water tank.
- 2) Drain all water inside of bottom reservoir tank.
- 3) Clean the AirWaterMachine with care.
- 4) Cover to prevent dust from forming on the AirWaterMachine and store the AirWaterMachine in original box if possible.



Function of SLO-FLO™ filters

- **Step 1 : Double-layered Electornic Air Filter**

The first filter that air passes through before being condensed and converted to water. Our electrostatic filter effectively prevents micro particles and dust from entering the machine.

- **Step 2 : Micro Sediment Filter**

Removes any remnants of foreign particles in the water.

- **Step 3 : Pre-Carbon Filter**

Removes chlorine, bad taste, odor, sediment extant and THM'S sediment. Focuses on removing lead, copper, chlorogorm, chemical residual, herbicides, pesticides, and other volatile organic compounds.

- **Step 4 : Post Block Carbon Filter**

Removes other residual substance and improves water taste.

- **Step 5 : Ultra Filtration Cartridge (Option)**

Ultra filtration cartridge is simply a bundle of permanently hydrophilic (water loving) capillary membrane filters. These filters have a highly porous, asymmetric structure in which the feed water follows a path from the large pores on the outside wall to the small pores on the inside wall.

Ultra filter's patented low-pressure membrane technology is unique for its high flow rates at minimal pressure membrane technology is unque for its high flow rates at minimal pressure requirements and its very tight pore size control (0.01micron). This results in unparalleled removal of organic contaminants, bacteria, and cysts.

- **Step 6 : Ultra Violet Light**

Ultra violet ray is the most effective available on bacteria, viruses and most algae with a 99.999% kill rate.

- **Step 7 : 24 hours recirculation system**

24 hours recirculation system keeps water clean and pure during long period storage.



Maintenance

● Cleaning

- 1) Unplug the power cord and unscrew the top lid and back cover of the AirWaterMachine.
- 2) Clean the top reservoir tank : Open the lid carefully, and use soft cloth to clean up.
- 3) Completely drain water inside of cold water tank : Open the drain cap locate at the front of the AirWaterMachine, completely drain water inside of cold water tank, then close the drain cap.
- 4) Completely drain water inside of hot water tank : Open the drain cap locate at the front of the AirWaterMachine, completely drain water inside of hot water tank, then close the drain cap.
- 5) Clean the bottom reservoir tank : Open the front panel and separate the top lid of bottom reservoir tank and draw out the body of tank to clean up.
After clean up, close the top lid firmly and slide back to the original position.
(Do not touch any lines and tubes on the top lid)

● Filter & UV exchange

- 1) Open the filter panel at the rear of the AirWaterMachine.
- 2) Separate the fittings from the filters.
- 3) Replace filters and insert the fittings again.
- 4) Filter exchange period.
 - > Double-layered Electornic Air Filter : Washable PP Filter Semi permanent
Disposale NWF Filter 3 months
 - > Micro Sediment : 6 months
 - > Pre-Carbon filter : 6 months
 - > Post block Carbon filter : 6 months
 - > UF membrane : 1 year
 - > UV light : about 1 year (Follow the UV replacement indicator)



Troubleshooting

● Cooling system-related problems

Problems		Point to be checked	Action to be taken
Not being cooled at all	Compressor does not work	<ol style="list-style-type: none"> 1. Is there a power failure? 2. Is it plugged in? 3. Is there a shorted fuse? 4. Are all the connections OK? 5. Are there any damaged parts? 	<ol style="list-style-type: none"> 1. Check other electric purifiers. 2. Plug in and check whether power is on. 3. Replace with new fuse. 4. Arrange the connection properly refer to the circuit diagram. 5. Replace damaged parts.
	Compressor is working	<ol style="list-style-type: none"> 1. After operating for more than 30 minutes, check whether the water is cold or hot. 2. Is cooling gas solenoid valve is working properly? 3. Is circulation solenoid valve is working properly? 	<ol style="list-style-type: none"> 1. Repair the refrigeraing system. 2. Replace the solenoid valve. 3. Replace the solenoid valve.
Difficulty cooling water		<ol style="list-style-type: none"> 1. Is the thermostat positioned at "LOW"? 2. Huge amount of water consumption? 3. Direct sunlight or heat source? 	<ol style="list-style-type: none"> 1. Set the thermostat position at "HIGH". 2. Wait until unit completes the cooling process. 3. Avoid the heat and the direct ray of sunlight.
Water is too cold		<ol style="list-style-type: none"> 1. Is the thermostat positioned at "HIGH"? 2. Is the thermostat working properly? 	<ol style="list-style-type: none"> 1. Set the thermostat position at "LOW" 2. Replace the thermostat.
Strange noises occur		<ol style="list-style-type: none"> 1. Is it installed on a flat and firm surface? 2. Are there any loose screws? 3. Are there any frozen pipes or surrounding plates causing it to shake? 4. Is the compressor well balanced? 5. Is the rear of the AirWaterManchine touching the wall? 6. Are there any foreign objects around the compressor? 7. Are there any noises coming from the compressor valves? 	<ol style="list-style-type: none"> 1. Level the AirWaterMachine. 2. tighten loose screws. 3. Leave some space between pipes. 4. Adjust the level of the compressor. 5. Give some space between rear of the AirWaterMachine and the wall. 6. Remove the foreign object. 7. Replace defective compressor.



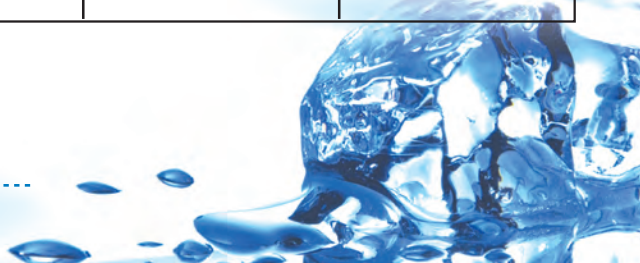
Troubleshooting

● Heating system-related problems

Problems	Point to be checked	Action to be taken
Not hot water	1. Using tester, check whether hot water switch is energized. 2. Check if the heater has a short-circuit.	1. Replace the hot water switch. 2. Replace the assembly of hot water container.
Hot water temperature is too low	Check the working conditions of automatic BI-METAL.	Replace the automatic BI-METAL, if the temperature does not go up after checking the water temperature.
Hot water temperature is too high	Check the working conditions of automatic BI-METAL.	

● Refrigerant system-related problems

Problems	Point to be checked		Action to be taken	
	Compressor	Condenser	Evaporator	Condition
Refrigerant leakage	Discharge pipes are slowly heated.	In the case of refrigerant leakage, the temperature may rise a little, but it will be cooled soon.	1. No flowing sound of refrigerant. 2. A little sound at the time of small amounts of leakage.	Naver cools nor makes water.
Clogged up with moisture & dirt	Leads to high temperature.	1. Temperature of entrance is rising. 2. Is there any frost at drier outlet while operating?	No flowing sound of refrigerant.	Slowly cools and makes water.
Defective discharge & compression	No difference between the suction & the discharge.	Same as surrounding temp.	A little flowing sound of refrigerant.	Never cools nor makes water.
Overfilling of refrigerant	Sharp rise of surface temp.	Discharge pipe has an abnormally high temp.	Flowing sound of refrigerant, but poor cooling condition.	Frost on the suction pipes & defective cooling condition.



Troubleshooting

• Water generating system-related problems

Problems	Point to be checked	Action to be taken
The AirWaterMachine does not supply water at all.	Is the tank dried up?	Check to see if there are any disconnected fuse. Check to see if plugged in.
	Shows a low percentage of humidity?	Minimum percentage of humidity is 50%
	Is the temperature too low?	Minimum temperature is 15°C
	Is the filter clogged?	Check its life span, then exchange.
	Is the float sensor in bottom reservoir tank working properly?	Replace the float sensor.
	Is the pump working properly?	Replace the pump
	Huge amount of water consumption?	Wait until the water generating process is complete.
	Is the air filter dirty?	Clean air filters periodically to prevent bad air circulation.

• Leakage

Problems	Point to be checked	Action to be taken
Leakage through inside or outside of purifier	<ol style="list-style-type: none"> 1. Leakage in the reservoir tank caused by minor damages (occurs frequently when replacing). 2. Check whether the water valve is completely connected. 3. Check if leakages are due to a broken cold or hot water tank or welded part. 4. Check tube and tube connector. 	<ol style="list-style-type: none"> 1. Replace the reservoir tank with a new one. 2. Properly connect the water valve. 3. Replace cold or hot water tank. 4. Make sure fasten tube into connector.
Leakage through the water valve	<ol style="list-style-type: none"> 1. Leakage through the water valve. 2. Leakage through the water valve cap and lever. 	<ol style="list-style-type: none"> 1. Press down the water valve lever several times. 2. Replace the water valve.

Reminder

- Make sure the right electric power supply (230V or 115V).
Before plug in, check the electric power supply.
- Keep the Evaporator coils and Double-layered Electornic Air Filter free of dirt or dust.
The cooling performance decreases when the Evaporator coils or Double-layered Electornic Air filter is soiled.
- Disconnect the power supply during inspection.
If not disconnected, the danger of electric shock exists.
- Make certain the UV light is working.
- Clean the water tanks (Top & Bottom)and air filters frequently.
Frequent cleaning is required to ensure cleanliness and proper air flow.

WARRANTY

We warrant this product (including any accessories) against natural defects in material or workmanship as follows:

PARTS : We will supply at no charge, new or rebuilt replacements in exchange for defective parts for a period of one (1) year.

This warranty does not cover cosmetic damage or damage due to acts of god, accident, misuse, abuse, negligence, or modification of, or to any part of the product.

This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than a facility authorized by us to service the product. This warranty does not cover products sold AS IS or WITHALL FAULTS, or consumable (such as fuses or water valves).

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the warranty period must be presented to obtain warranty service.

“Should general maintenance procedures not be followed concerning air filter cleaning & replacement and/or water filter replacements as described in the owner’s manual, warranty service calls will not be covered under warranty”.

PRODUCT NAME	AirWaterMachine		
MODEL NUMBER	RAIN CLOUD™ (C-21)		
SERIAL NUMBER			
PURCHASE DATE	Year	Month	Date
CUSTOMER	Address		
	Name	Phone	